

**HEMIPTERA-HETEROPTERA FROM MEXICO XLIII.
A NEW GENUS AND THREE NEW SPECIES OF
NEOTROPICAL MICRELYTRINAE (ALYDIDAE)
COLLECTED ON BAMBOOS**

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Abstract.—A new genus of Micrelytrinae (Alydidae) is erected and three new species collected in Mexico are described. Its resemblance with *Bactrophya* Breddin, *Bactrocoris* Kormilev, and *Slateria* Ahmad, as well as its relationship within the Micrelytrinae, are discussed. The host plant of each species is a *Guadua* spp. (Bambuseae). A key is given to distinguish the known species. Illustrations include a dorsal and lateral view of the head, the antennal segments, and details of the pygophore and the genital plate of the female.

During a revision of the Mexican Micrelytrinae (Alydidae) (Brailovsky and Zurbia, 1979), I had the opportunity of examining several unusually slender specimens. They obviously belonged to the Micrelytrinae, because of the medioposterior spine on the pygophore, the small bucculae, a nonsulcate hind tibia, and labial segment II conspicuously longer than labial segments III and IV together.

Each of the species described in the present paper was collected on bamboos, belonging to the genus *Guadua* (Bambuseae), confirming the grass feeding preferences of the subfamily.

The following abbreviations are used in the text: American Museum of Natural History, New York (AMNH); British Museum of Natural History (BMNH); Instituto de Biología de la Universidad Nacional Autónoma de México (IBUNAM); Texas A&M University (TAMU); University of Karachi (UK).

All measurements are in millimeters.

***Bactrophyamixia*, new genus**

Description. Body slender, elongate and linear. **Head.** Remarkably elongate, longer than pronotum and parallel sided; juga strongly developed, exceeding the tylus for more than 80% of their total length and confluent over most of that length; juga wider and stouter on proximal three fourths, narrowing distally, apically acute and in lateral view decurved or nearly straight (1, 2, 5, 6, 10, 11, 14, 15, 19, 20); ocelli small, interocellar space less than the distance from eye to ocellus; pit anterior to ocellus conspicuous; frons with the median longitudinal sulcus distinctly longer than distance between ocelli; eyes relatively small, hemispherical, in lateral view located below the frontal surface; antenniferous tubercles unarmed; antennal segment I weakly swollen or dorsoventrally depressed and sulcate (Figs. 23–25); antennal segment II and III long, slender; segment IV slender, slightly curved, and fusiform; antennal segments I–III with long, erect slender setae, segment IV with shorter semierect setae; antennal segment I subequal in length to IV or conspicuously shorter; bucculae small,

confined to the apical third of the head; labium reaching from posterior border of metasternum to anterior margin of abdominal sternum III; labial segment I reaching prosternum; labial segment II longer than segments III and IV together. **Thorax.** *Pronotum.* Subrectangular, parallel, sided, unarmed, not declivent, and longer than wide; densely punctate, the callar region somewhat rugose or nodulose; humeral angles obtuse and rounded; propleuron heavily punctate, mesopleuron and metapleuron with scattered punctures; prosternum concave; mesosternum and metasternum smooth and with a deep median longitudinal sulcus; metathoracic scent glands opening into coxal cavities, with the anterior scent gland lobe elongate and oriented longitudinally, the posterior lobe shorter and oriented transversely. *Legs.* Unarmed; tarsal segment I longer than segments II and III together; femora and tibiae with long, slender, erect setae. *Scutellum.* Longer than wide, unarmed, and irregularly punctate. *Hemelytra.* Clavus and corium with large irregularly placed punctures; costal margin of corium extending more than $\frac{2}{3}$ parts of length of membrane; membrane reaching from posterior margin of abdominal tergum VI to posterior margin of the abdominal tergum VII. **Male genitalia.** *Pygophore.* Posteroventral border depressed or not and with a large, acute, medioposterior spine, with the parameres not attaining apex of spine (Figs. 7, 21) or paramere arrow-shaped and exceeded by the spine (Fig. 16); pygophore in lateral view as in Figures 9, 18, and 26, dorsal view as in Figures 8, 17, and 22. **Female genitalia.** Inflated or not; seventh abdominal sternum posteriorly entire; first gonocoxae somewhat squared, with inner margin sinuately emarginate and outer margin sinuate or straight (Figs. 3, 4, 12, 13).

Type species. *Bactrophyamixia slateri*, new species.

Etymology. Named for the similarity of its appearance to *Bactrophyta*; feminine.

Distribution. Mexico.

Discussion. *Bactrophyamixia* is distinctive within the subfamily Micrelytrinae by virtue of the extraordinary development of the juga, which greatly exceed and are confluent in front of the tylus, with the distal third acuminate and forming a straight or decurved projection, together with the pronotum and scutellum totally unarmed.

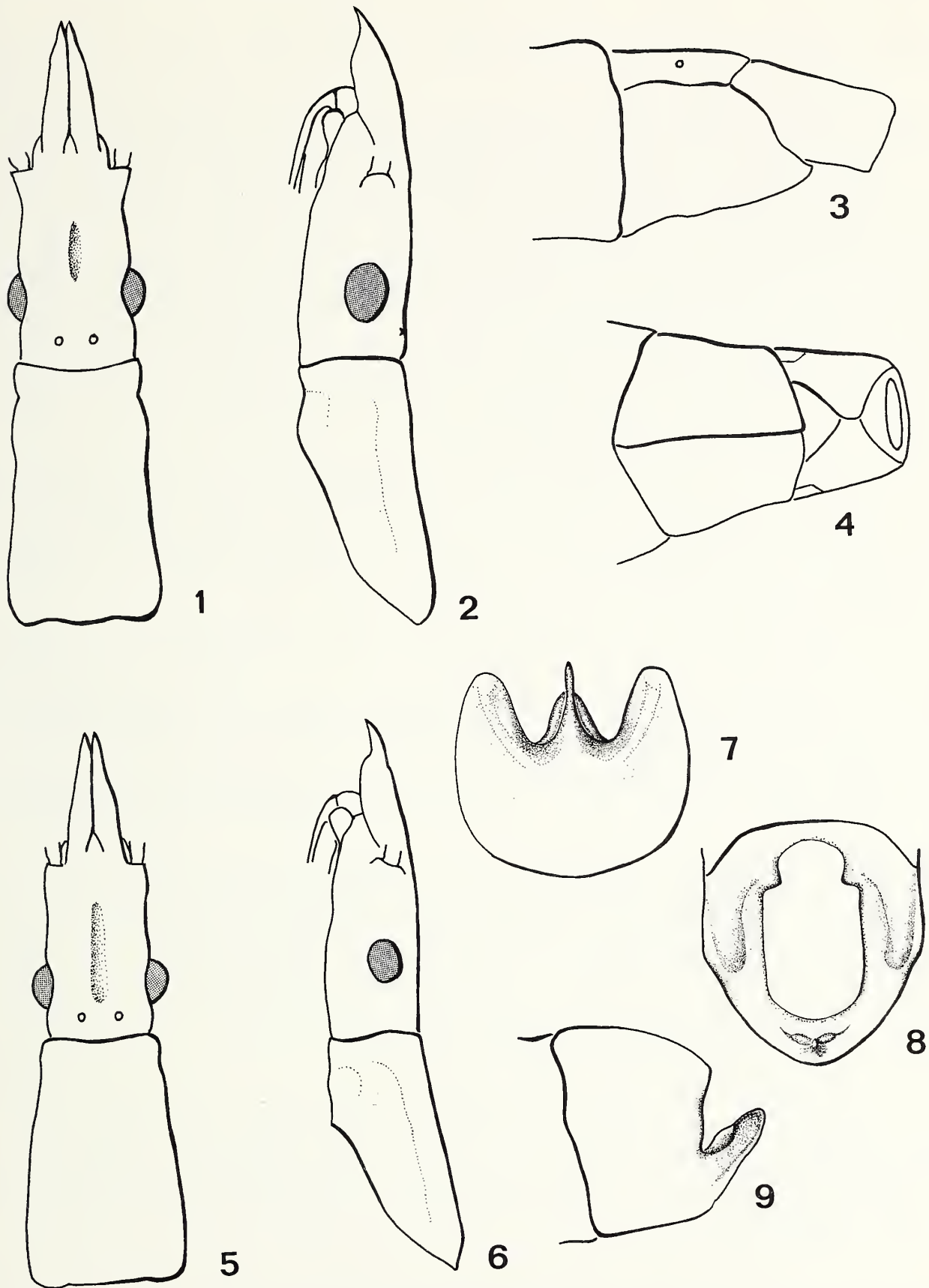
In *Bactrophyta* Breddin and *Bactrocoris* Kormilev, both from South America, the juga are well developed, elongate and hide the tylus and the head is longer than the pronotum, but the distal third of the juga is never acuminate as typical of *Bactrophyamixia*.

The new genus also resembles *Slateria* Ahmad, described from Burma (Ahmad, 1965). In both genera the body is linear, the head elongate and longer than the pronotum, and the juga are strongly developed. Despite these similarities, *Bactrophyamixia* can easily be separated from *Slateria*. In the latter the juga are separated from one another by an enormously developed tylus, which is produced and pointed in front of the juga like a beak, and the first antennal segment has a strong dorsolateral spine distally which is absent in the *Bactrophyamixia*.

***Bactrophyamixia slateri*, new species**

Figs. 1-9, 23

Description. Individuals of relatively large size, slender, elongate, with the antennal segment I swollen throughout and little longer than or subequal to segment IV. **Dorsal**



Figs. 1-9. *Bactrophyamixia slateri*, new species. Figs. 1-4. Female. 1. Head and pronotum in dorsal view. 2. Head and pronotum in lateral view. 3. Genital plates in lateral view. 4. Genital plates in ventral view. 5-9. Male. 5. Head and pronotum in dorsal view. 6. Head and pronotum in lateral view. 7. Pygophore in frontal view. 8. Pygophore in dorsal view. 9. Pygophore in lateral view.

coloration. Head, pronotum, scutellum, entire hemelytra, connexival segments, and antennal segments I to III pale orange yellow; ocelli reddish; dorsum of abdomen pale brownish; punctures of scutellum, clavus, and corium obscurely orange. **Ventral coloration.** Head, mesosternum, metasternum, and abdominal sternum pale yellow cream; prothorax, mesopleuron, metapleuron, and legs pale orange yellow; labium pale orange yellow, with a few scattered red markings and with segment IV mostly black; mid portion of abdominal sterna II to VII black. Antennal segment I terete and swollen throughout and little longer or subequal to segment IV (Fig. 23); labium reaching the posterior margin of metasternum; membrane of hemelytra reaching the anterior margin of the seventh abdominal tergum. **Genitalia.** *Male.* *Pygophore.* Posteroventral border not depressed, with a large acute, medioposterior spine with the apical third simple and acute, the parameres not attaining the apex of the spine (Fig. 7); pygophore in dorsal view as in Figure 8; pygophore in lateral view as in Figure 9. *Female.* Genital plates not inflated (Figs. 3–4).

Measurements. Male. Length head: 2.92; interocellar space: 0.24; width across eyes: 1.40; interocular space: 0.88; length antennal segments: I, 4.16; II, 3.60; III, 2.60; VI, 4.12; length labial segments: I, 2.40; II, 2.56; III, 0.40; IV, 0.84. Length pronotum: 2.28; width across frontal angles: 1.16; width across humeral angles: 1.52. Length scutellum: 1.20; width: 0.88. Total body length: 17.20.

Female. Length head: 3.22; interocellar space: 0.28; width across eyes: 1.56; interocular space: 1.04; length antennal segments: I, 4.40; II, 3.92; III, 2.64; IV, 3.96; length labial segments: I, 2.72; II, 2.84; III, 0.44; IV, 0.84. Length pronotum: 2.36; width across frontal angles: 1.32; width across humeral angles: 1.60. Length scutellum: 1.16; width: 0.74. Total body length 16.54.

Holotype male. MEXICO: GUERRERO: km. 20 carretera Chilpancingo-Omilteme, 29.I.1982, A. Ibarra. Collected on *Guadua* sp. (Bambuseae). Deposited in IBUNAM.

Paratypes. MEXICO: GUERRERO: km. 5 carratera Chilpancingo-Omilteme, 26.XI.1981. H. Brailovsky y E. Barrera. Collected on *Guadua* sp. (Bambuseae). Two males, one female. Deposited in IBUNAM. MEXICO: GUERRERO: Chapa, 5.III.1987. E. Barrera, H. Brailovsky, y L. Cervantes. Collected on *Guadua* sp. (Bambuseae). Three females, one male. Deposited in AMNH, BMNH, and IBUNAM. MEXICO: GUERRERO: km. 73 carretera Cuernavaca-Iguala, 30.I.1982. E. Barrera. Collected on *Guadua* sp. (Bambuseae). One female. Deposited in IBUNAM. MEXICO: GUERRERO: Teloloapan. 22.X.1983. H. Brailovsky y E. Barrera. Collected in *Guadua spinosae* (Sw.) McClene (Bambuseae). Two females. Deposited in IBUNAM. MEXICO: GUERRERO: km. 11 carretera Chilpancingo-Chichihualco, 29.XI.1981. H. Brailovsky. Collected in *Guadua* sp. (Bambuseae). One female. Deposited in IBUNAM.

Discussion. Distinguished by the dimensions and form of the male genitalia (Figs. 7–9), the genital plates of the female not swollen (Fig. 3), and antennal segment I swollen throughout and little longer or subequal in length to antennal segment IV (Fig. 23).

Etymology. Named for Dr. James A. Slater, in recognition of his distinguished services toward the advancement of knowledge of the family Lygaeidae and for the many years of friendship.

Bactrophyamixia antennata, new species

Figs. 10–18, 24

Description. Individuals of relatively large size, slender, elongate, linear, with antennal segment I dorsoventrally depressed and sulcate and conspicuously shorter than segment IV. **Dorsal coloration.** Head, pronotum, entire hemelytra, connexival segments, abdominal dorsum, and antennal segments I to III pale yellow; antennal segment IV brownish with the basal third and distal third pale yellow; pronotal disc with few pale yellow-cream spots; scutellum pale yellow green; punctures of scutellum, clavus and corium obscurely orange. **Ventral coloration.** Head and abdomen pale yellow; thorax, lobes of the metathoracic scent glands, coxae, trochanters, and femora pale yellow and sprinkled or not with pale green; tibiae and tarsal segments pale orange yellow; labial segments I and II pale yellow, III castaneus and IV mostly black; posterior border of abdominal sterna IV–VI yellow or brownish. Antennal segment I dorsoventrally depressed and sulcate and conspicuously shorter than IV (Fig. 24); labium reaching the anterior margin of abdominal sternum III; membrane of hemelytra reaching the posterior margin of abdominal tergum VI. **Genitalia.** *Male.* *Pygophore.* Posteroventral border not depressed, with a large, acute medioposterior spine, with the apical third arrow-shaped (Fig. 16); pygophore in lateral view as in Figure 18; pygophore in dorsal view as in Figure 17. *Female.* Genital plates inflated (Fig. 12).

Measurements. Male. Length head: 3.20; interocellar space: 0.20; width across eyes: 1.36; interocular space: 0.88; length antennal segments: I, 4.62; II, 3.28; III, 2.60; IV, 6.10; length labial segments: I, 2.72; II, 2.88; III, 0.36; IV, 0.76. Length pronotum: 2.04; width across frontal angles: 1.12; width across humeral angles: 1.48. Length scutellum: 1.12; width: 0.92. Total body length: 17.56.

Female. Length head: 3.64; interocellar space: 0.20; width across eyes: 1.60; interocular space: 1.04; length antennal segments: I, 4.04; II, 3.28; III, 2.64; IV, 5.16; length labial segments: I, 3.00; II, 3.00; III, 0.44; IV, 0.80. Length pronotum: 2.24; width across frontal angles: 1.72; width across humeral angles: 1.72. Length scutellum: 1.16; width: 0.92. Total body length: 18.10.

Holotype male. MEXICO: CHIAPAS: Boca Lacantum (Rio Usumacinta), 25.V.84. E. Barrera and M. Garcia. Collected in *Guadua* sp. (Bambuseae). Deposited in IBUNAM.

Paratype. Female. Same data as holotype. Deposited in IBUNAM.

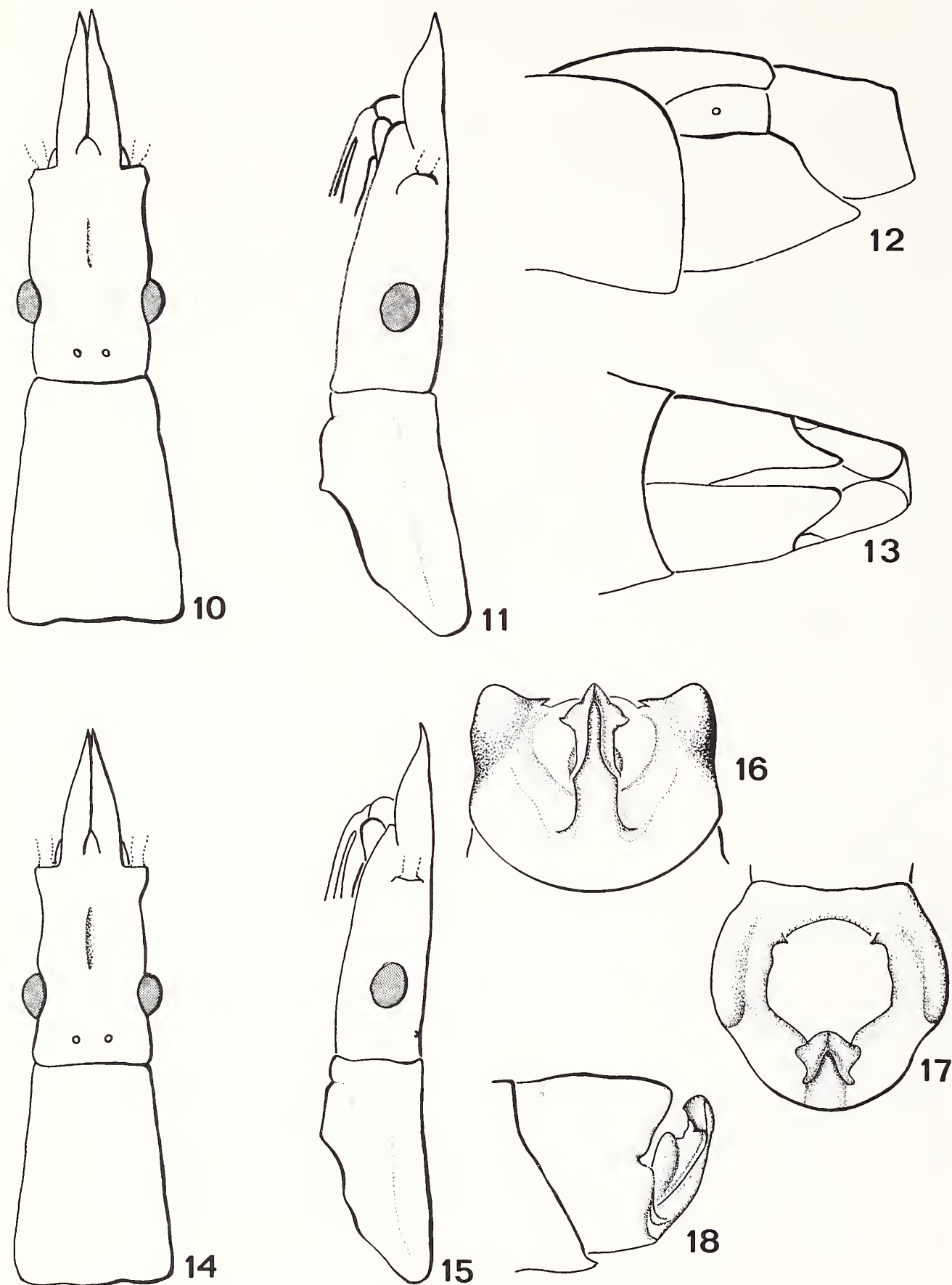
Discussion. Recognized by the dimensions and the form of the pygophore (Figs. 16–18), the inflated genital plates of the female (Figs. 12–13), and antennal segment I depressed, sulcate, and conspicuously shorter than segment IV (Figs. 23–25).

Etymology. Named for the remarkable structure of antennal segment I.

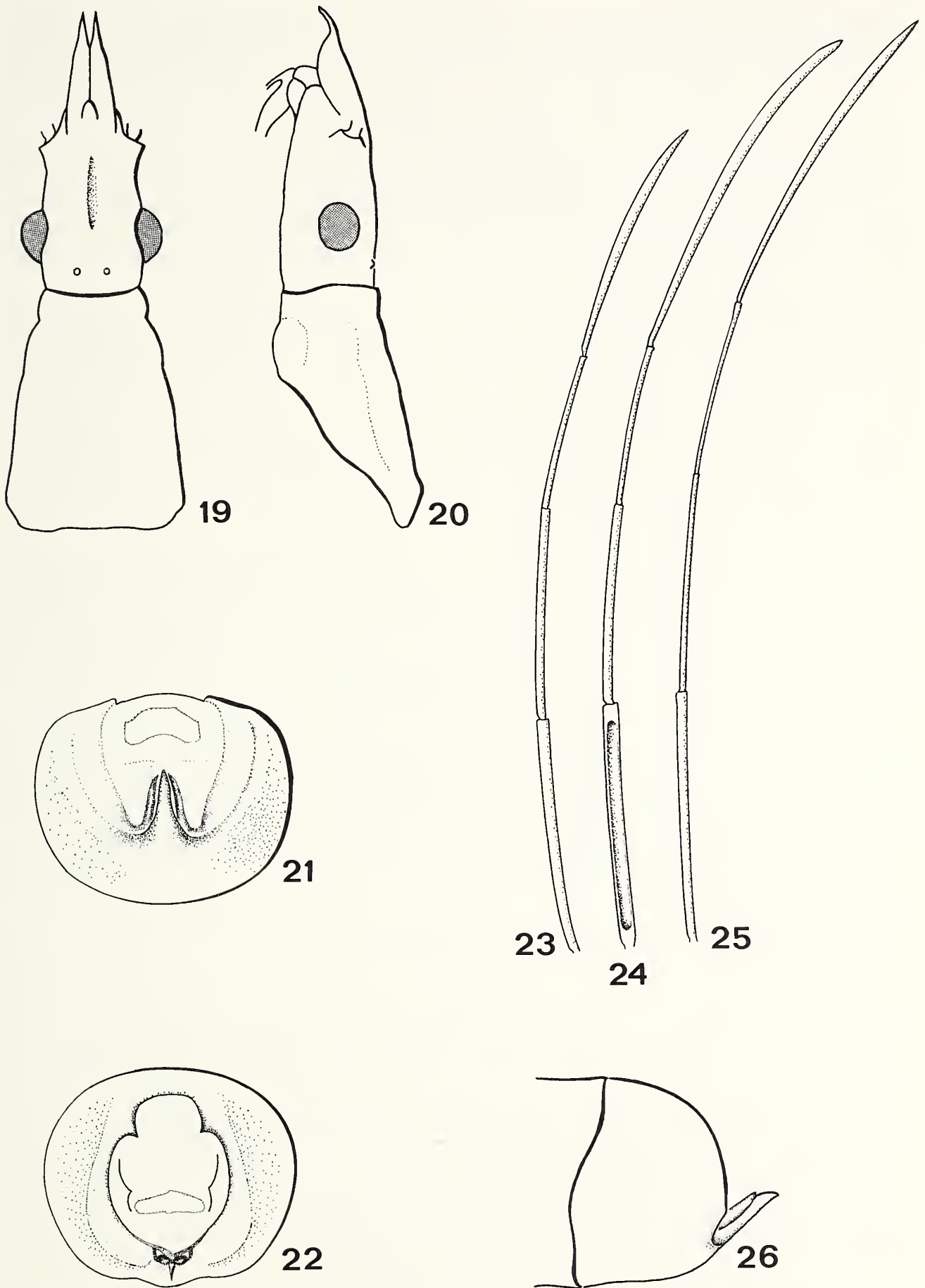
Bactrophyamixia bambusicola, new species

Figs. 19–22, 25–26

Description. Individuals of relative large size, slender, elongate, with antennal segment I swollen throughout and conspicuously shorter than segment IV. **Dorsal**



Figs. 10-18. *Bactrophyamixia antennata*, new species. Figs. 10-13. Female. 10. Head and pronotum in dorsal view. 11. Head and pronotum in lateral view. 12. Genital plates in lateral view. 13. Genital plates in ventral view. Figs. 14-18. Male. 14. Head and pronotum in dorsal view. 15. Head and pronotum in lateral view. 16. Pygophore in frontal view. 17. Pygophore in dorsal view. 18. Pygophore in lateral view.



Figs. 19–22, 26. *Bactrophyamixia bambusicola*, new species. 19. Head and pronotum in dorsal view. 20. Head and pronotum in lateral view. 21. Pygophore in frontal view. 22. Pygophore in dorsal view. 26. Pygophore in lateral view. Figs. 23–25. Antennal segments. 23. *Bactrophyamixia slateri*. 24. *Bactrophyamixia antennata*. 25. *Bactrophyamixia bambusicola*.

coloration. Head and pronotum pale orange yellow, with longitudinal yellow cream stripe laterally and isolated cream spots on the pronotal disc; antennal segments I to III orange, segment IV pale yellow on basal half and brownish on apical half; scutellum, clavus, and corium pale orange yellow with a brownish stripe on tergum VI. **Ventral coloration.** Head and abdominal sternum III to VI pale orange yellow; abdominal sterna VII and VIII and pygophore mostly brownish black; labial segments I to III pale yellow and IV pale orange with the apical third black; mesosternum, metasternum, lobes of the metathoracic scent glands, and a small spot on the acetabulae of the three pairs of legs pale yellow cream; prothorax, mesopleuron, and metapleuron pale yellow with the punctures obscurely orange; coxae, trochanters, and basal third of femora pale yellow, the rest of the legs orange. Antennal segment I terete and swollen throughout and conspicuously shorter than segment IV (Fig. 25); labium reaching the anterior margin of the abdominal sternum III; membrane of hemelytra reaching the posterior margin of abdominal tergum VII. **Genitalia. Male. Pygophore.** Posteroventral border depressed in lateral view, with a large, acute medioposterior spine, the apical third simple and acute, with the paramere reaching to just below the apex of spine (Fig. 21); pygophore in lateral view as in Figure 26; pygophore in dorsal view as in Figure 22.

Measurements. Male. Length head: 2.80; interocellar space: 0.20; width across eyes: 1.56; interocular space: 0.96; length antennal segments: I, 4.84; II, 3.83; III, 3.04; IV, 5.64; length labial segments: I, 2.60; II, 2.68; III, 0.44; IV, 0.88. Length pronotum: 2.32; width across frontal angles: 1.24; width across humeral angles: 1.84. Length scutellum: 1.44; width: 1.00. Total body length: 17.15.

Holotype male. MEXICO: OAXACA: Portillo del Rayo, 31.XI.1987. Ernesto Barrera. Collected on *Guadua* sp. (Bambuseae). Deposited in IBUNAM.

Discussion. Most similar in structure and coloration to *B. slateri*. In *B. bambusicola* antennal segment I is conspicuously shorter than segment IV, the anterolateral margin of the pronotum has a yellow cream stripe that contrasts with the pale orange yellow color of the pronotal disc and the pygophore is distinctive (Figs. 7–9, 21, 22, 26). In *B. slateri* antennal segment I is little longer than or subequal in length to segment IV (Figs. 23 and 25).

Etymology. Named for its occurrence on bamboos.

KEY TO *BACTROPHYAMIXIA* SPECIES

1. Antennal segment I depressed and sulcate (Fig. 24); pygophore with lateral border markedly exposed (Fig. 18) *B. antennata*, new species
- Antennal segment I swollen throughout and never depressed and sulcate (Figs. 23 and 25); pygophore with lateral border rounded and not exposed (Figs. 9 and 26) 2
2. Antennal segment I conspicuously shorter than segment IV; pygophore with the posteroventral border depressed (Fig. 26) *B. bambusicola*, new species
- Antennal segment I a little longer or subequal to segment IV; pygophore with the posteroventral border not depressed (Fig. 9) *B. slateri*, new species

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LITERATURE CITED

- Ahmad, I. 1965. A new genus and species of Micrelytrinae from Upper Burma (Hemiptera: Alydidae). *Proc. Roy. Entomol. Soc. Lond. (B)* 34(11-12):137-140.
- Brailovsky, H. and R. Zurbia Flores. 1979. Contribucion al estudio de los Hemiptera-Heteroptera de Mexico: XVII. Revision de la Familia Alydidae Amyot y Serville. *Ann. Inst. Biol. Univ. Nal. Auton. Mexico, Ser. Zool.* 50(1):255-339.

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